

Abstract of the Disclosure

Sub A

A dual mode laser-based bar code symbol reading device having a hand-supportable housing with a light transmission aperture through which visible light can exit and enter the hand-supportable housing. A laser scanning engine, disposed within the hand-supportable housing, is controlled to selectively operate in either an omni-directional scan mode or a single line scan mode. In the omni-directional scan mode, the laser scanning engine projects an omni-directional scan pattern through the light transmission aperture, detects and decodes bar code symbols on objects passing through the omni-directional scan pattern, and produces symbol character data representative of decoded bar code symbols. In the single-line scan mode, the laser scanning engine projects a single line scan pattern through the light transmission aperture and detects and decodes bar code symbols on objects passing through the single line scan pattern, and produces symbol character data representative of decoded bar code symbols. A manually-actuable data transmission switch, integrated with said hand-supportable housing, produces an activation signal in response to the manual-actuation of the data transmission switch. A data transmission subsystem, disposed in the hand-supportable housing, operates under control of control circuitry to communicate the symbol character data produced by the laser scanning engine to a host device operably coupled to the bar code symbol reading device. The control circuitry enables communication of symbol character data produced by the laser scanning engine in the single line scan mode of operation to the host device in response to the activation signal produced by the data transmission switch, and the control circuitry enables communication of symbol character data produced by the laser scanning engine in the omni-directional scan mode of operation to the host device irrespective of the activation signal produced by the data transmission switch. Preferably, the bar code symbol reading device is supported in a support stand and a mode selection means (e.g., hall sensor and control circuitry) is integrated with the hand-supportable housing of the device. The mode selection means selectively operates the laser scanning engine of the device in either the omni-directional scan mode of operation or the single line scan mode of operation in response to placement of said hand-supportable housing in the support stand. This feature enables the device to automatically operate, when placed in the support stand, in the omni-directional scan mode of operation as a stationary hands-free

FOOTNOTES

projection scanner, and automatically operate, when removed from the support stand, in the single scan line mode of operation as a portable hand-held scanner. In addition, the laser scanning engine of the device preferably includes circuitry that operates in a preprogrammed set of operational states wherethrough the device automatically passes during each bar code symbol reading operation, the states including an object detection state (which may be omitted), a bar code presence detection state, and a bar code symbol reading state.

FOOTNOT